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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,485	09/15/2003	Kenichi Kawauchi	046601-5109	9250
9629	7590	12/23/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			HUFFMAN, JULIAN D	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,485

Applicant(s)

KAWAUCHI ET AL.

Examiner

Julian D. Huffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 11, 13, 14, 16 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-9, 12, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9, 12, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto et al. (U.S. 6,655,771 B2).

Matsumoto et al. discloses:

With regards to claims 1, 5, 8, 12 and 17 a system for correcting ink droplet placement errors in a recording apparatus, comprising:

a recording apparatus (fig. 1b) recording images on a recording medium which is conveyed in a first direction past discharging ink droplets from a recording head part (fig. 6) to the recording medium, the recording head part having a plurality of recording heads (column 9, lines 2-4 and column 19, lines 10-15, plural colors requires plural recording heads since the heads are non-movable) arranged in the first direction, the recording heads having a plurality of recording head arrays (54C-54E) in the first direction, the recording head arrays having a plurality of recording head units (52) arranged in a second direction perpendicular to the first direction, the recording head

arrays being held by the recording head, the recording head units having an ink discharging surface, the recording head units being disposed in a staggered arrangement (fig. 6), the recording head units having an ink discharging surface;

an identifying unit (56) for identifying a first a second and a third error, corresponding respectively to the recording head units and head arrays and heads in the first direction (column 18, lines 40-55); and

a controlling unit (56) for controlling timing to discharge ink droplets by the recording head units to reduce ink droplet placement errors (column 18, lines 40-55) in the first direction based on a first ink droplet placement error provided by the recording head units, a second ink droplet placement error provided by the recording head arrays, and a third ink droplet placement error provided by the recording heads (fig. 7, the errors corrected are errors in the first direction, or medium feeding direction).

With regards to claim 18, a correcting method for correcting ink droplet placement errors comprising the steps of:

detecting for a first ink placement error between recording head units arranged in a direction perpendicular to a recording medium conveying direction;

detecting for a second ink placement error between recording head arrays arranged in the recording medium conveying direction and respectively having a plurality of recording head units arranged in the direction perpendicular to the recording medium conveying direction; and

controlling timing to discharge the droplets from the recording head units to reduce the error based on the detected first ink placement error and the detected second ink placement error (column 18, lines 40-55).

With regards to claims 2, 6 and 9, the apparatus according to claims 1, 5 or 8, further comprising:

wherein the identifying unit includes a reading unit for reading images on a recording medium, the images being printed by the recording head part (column 11, lines 56-59); and

a detecting unit for detecting the ink droplets placement errors in the first direction by each of the recording head units based on the reading images provided by the reading unit, and the controlling unit controls the timing based on the errors provided by the detecting unit (column 18, lines 44-55).

With regards to claims 3 and 7, the apparatus according to claims 2 or 6, wherein the recording head units which are disposed in a staggered arrangement (fig. 6), the detecting unit further detects ink droplets placement errors of the recording head arrays, the controlling unit further controls timing to discharge ink droplets from the recording head units, based on the errors provided by the detecting unit, to reduce the errors based on the errors by the detecting unit (column 18, lines 44-55).

With regards to claim 4, the apparatus according to claim 3, wherein the detecting unit further detects ink droplet placement errors of the recording heads in the first direction, and the controlling unit further controls timing to discharge ink droplets

from the recording head units of each of the recording heads to reduce the errors based on the errors provided by the detecting unit (column 18, lines 44-55).

Allowable Subject Matter

3. Claims 10, 11, 13, 14, 16 and 19 are allowed.

Claim Objections

4. Claim 15 is objected to because of the following informalities:
Appropriate correction is required.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new grounds of rejection necessitated by the amendment.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Julian D. Huffman
17 December 2005



K. FEGGINS
PRIMARY EXAMINER
12/05